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10/656,384

09/05/2003

J.Kirk Haselden

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EXAMINER

PATEL, NIRAV B

ART UNIT

PAPER NUMBER

2135

MAIL DATE

DELIVERY MODE

04/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/656,384

Applicant(s)

HASELDEN ET AL.

Examiner

NIRAV PATEL

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2008 (Amendment).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-26 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-26 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed on Jan 31, 20048 has been entered. Claims 2-26, 34 are pending. Claim 1 is canceled by the applicant and claims 2-10, 18 are amended and Claim 34 is newly added by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10-13, 16-22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan et al (US Patent No. 6,405,316) and in view of Golan (US Patent No. 5,974,549) and in view of Granger et al (US Patent No. 6,643,775).

As per claim 10, Krishnan teaches:

providing a compiled executable file for persisting an object model having [Fig. 1]: an image source from which the persisted object model is instantiated in a memory of a computer [Fig. 1, col. 6 lines 25-35, col. 7 lines 1-10]; a security source from which a security agent is instantiated in the memory of the computer [Fig. 8A, 8B col. 9 lines 55-56]; and loader for being instantiated in the memory of the computer [Fig. 1, 8A, 8B, col. 3 lines 1-4]; instantiating the security agent in the memory from the security source, and returning to the commander a first reference to the instantiated security agent, whereby the commander in

Art Unit: 2135

employing the first reference accesses the security agent rather than the instantiated object model [Fig. 6, 8A, col. 8 lines 49-65].

Golan teaches:

a security agent is instantiated in the memory of the computer; the security agent for controlling access to the object model as instantiated in the memory of the computer, upon a command from a commander to execute the executable file to instantiate the persisted object model, the loader for instantiating the object model in the memory from the image source, instantiating the security agent in the memory from the security source, and returning to the commander a first reference to the instantiated security agent, whereby the commander in employing the first reference accesses the security agent rather than the instantiated object model [Fig. 9, 14, col. 8 lines 29-67, col. 9 lines 1-10, Fig. 5, col. 11 lines 45-67, col. 12 lines 1-13, col. 13 lines 5-67, col. 14 lines 1-40].

Golan teaches that the security agent/monitor prevents the security breach by monitoring the call/command as above.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Golan with Krishnan, since one would have been motivated to prevent the security breaches by monitoring the execution of the software component to [Golan, col. 1 lines 13-28].

Granger teaches: the security agent does not allow the object model to be exposed in a non-obfuscated form [col. 15 lines 53-59, col. 19 lines 35-58].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Granger with Krishnan and Golan to add obfuscation layer into the software application/program, since one would have been motivated to prevent unauthorized distribution and use of the computer program [Granger, col. 1 lines 20-21].

Art Unit: 2135

As per claim 11, the rejection of claim 10 is incorporated and Golan discloses:

the loader upon instantiating the security agent provides same with a second reference to the instantiated object model, whereby the commander does not have the second reference and therefore cannot directly access the object model or command same to act [Fig. 4, col. 7 lines 50-57, Fig. 10].

As per claim 12, the rejection of claim 10 is incorporated and Golan discloses:

the instantiated security agent passes on each command (i.e. API call) from the commander to the object model unless such security agent deems such command to be of a type that should not be so passed on [col. 2 lines 43-47, 67, col. 3 lines 1-3].

As per claim 13, the rejection of claim 12 is incorporated and Golan discloses blocking the API calls (i.e. commands) that are forbidden according to the security policy [col. 2 line 67, col. 3 lines 1-3].

Granger teaches: the security agent does not expose the object model in a non-obfuscated form [col. 15 lines 53-59, col. 19 lines 35-58].

As per claims 16 and 17, the rejection of claim 10 is incorporated and Krishnan discloses:

the loader instantiates the security agent as part of the object model [Fig. 8A, 8B].

As per claim 18, it encompasses limitations that are similar to limitations of claim 10. Thus, it is rejected with the same rationale applied against claim 10 above.

As per claim 19, the rejection of claim 18 is incorporated and Golan discloses:

the executable file is compiled by a compiler from a C-type programming language object model document [col. 9 lines 56-67, col. 10 lines 1-18, Fig. 4].

As per claim 20, the rejection of claim 18 is incorporated and it encompasses limitations that are similar to limitations of claim 11. Thus, it is rejected with the same rationale applied against claim 11 above.

Art Unit: 2135

As per claim 21, the rejection of claim 18 is incorporated and it encompasses limitations that are similar to limitations of claim 12. Thus, it is rejected with the same rationale applied against claim 12 above.

As per claim 22, the rejection of claim 21 is incorporated and it encompasses limitations that are similar to limitations of claim 13. Thus, it is rejected with the same rationale applied against claim 13 above.

As per claim 26, the rejection of claim 18 is incorporated and it encompasses limitations that are similar to limitations of claim 16. Thus, it is rejected with the same rationale applied against claim 16 above.

3. Claims 14, 15, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan et al (US Patent No. 6,405,316) and in view of Golan (US Patent No. 5,974,549) and in view of Granger et al (US Patent No. 6,643,775) and Masaki et al (US Patent No. 6,980,308).

As per claim 14, the rejection of claim 4 is incorporated and Golan discloses:

blocking the API calls (i.e. commands) by the security monitor that are forbidden according to the security policy [col. 2 line 67, col. 3 lines 1-3].

Masaki teaches:

if the degree of matching with the specified pattern is large (i.e. expose the object with a level of granularity finer than a pre-defined maximum), sends a print inhibition command to the printer driver to stop the transmission of the print data (i.e. does not pass a command) [col. 4 lines 1-5, col. 3 lines 9-13, Fig. 7].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Masaki with Krishnan, Golan and Granger, since one would have been motivated to provide the security [Masaki, col. 1 line 13].

As per claim 15, the rejection of claim 14 is incorporated and Golan discloses:

Art Unit: 2135

allowing the API calls (i.e. commands) by the security monitor that are permitted according to the security policy [col. 3 lines 3-5].

Masaki teaches:

the pattern detector does not detect a specified pattern (i.e. expose the object with a level of granularity coarser than the pre-defined maximum), sends a print permission command to the printer driver to start the transmission of the print data (i.e. passes a command) [col. 3 lines 1-7, Fig. 7].

As per claim 23, the rejection of claim 21 is incorporated and it encompasses limitations that are similar to limitations of claim 14. Thus, it is rejected with the same rationale applied against claim 14 above.

As per claim 24, the rejection of claim 23 is incorporated and it encompasses limitations that are similar to limitations of claim 15. Thus, it is rejected with the same rationale applied against claim 15 above.

4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan et al (US Patent No. 6,405,316) and in view of Golan (US Patent No. 5,974,549) and in view of Granger et al (US Patent No. 6,643,775) and in view of Dutta et al (US Pub. No. 2002/0138727).

As per claim 25, the rejection of claim 18 is incorporated and Krishnan discloses the security agent and the object model [Fig. 1].

Dutta teaches:

the loader instantiates the security agent (i.e. class public ServerClassM) separately from the object model (i.e. Class public ClientClassA or Class public ClientClassB) [Fig. 4A, paragraph 0047, 0048, 0050].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Dutta with Krishnan, Golan and Granger, since one would have been motivated to provide secure access control [Dutta, paragraph 0009 lines 4-5].

5. Claims 34, 2-4, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan et al (US Patent No. 6,405,316) and in view of Golan (US Patent No. 5,974,549) and in view of Liberman et al (US Pub. No. 2003/0028801).

As per claim 34, Krishnan teaches:

a compiled executable file for persisting an object model having [Fig. 1]: an image source from which the persisted object model is instantiated in a memory of a computer [Fig. 1, col. 6 lines 25-35, col. 7 lines 1-10]; a security source from which a security agent is instantiated in the memory of the computer [Fig. 8A, 8B col. 9 lines 55-56]; and a loader for being instantiated in the memory of the computer [Fig. 1, 8A, 8B, col. 3 lines 1-4]. Further, Krishnan teaches instantiating the security agent in the memory from the security source, and returning to the commander a first reference to the instantiated security agent, whereby the commander in employing the first reference accesses the security agent rather than the instantiated object model [Fig. 6, 8A, col. 8 lines 49-65].

Golan teaches:

a security agent is instantiated in the memory of the computer; the security agent for controlling access to the object model as instantiated in the memory of the computer, upon a command from a commander to execute the executable file to instantiate the persisted object model, the loader for instantiating the object model in the memory from the image source, instantiating the security agent in the memory from the security source, and returning to the commander a first reference to the instantiated security agent, whereby the commander in employing the first reference accesses the security agent rather than the instantiated object model [Fig. 9, 14, col. 8 lines 29-67, col. 9 lines 1-10, Fig. 5, col. 11 lines 45-67, col. 12 lines 1-13, col. 13 lines 5-67, col. 14 lines 1-40]; the loader upon instantiating the security agent provides

Art Unit: 2135

same with a second reference to the instantiated object model, whereby the commander does not have the second reference and therefore cannot directly access the object model or command same to act [Fig. 4, col. 7 lines 50-57, Fig. 10].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Golan with Krishnan, since one would have been motivated to prevent the security breaches by monitoring the execution of the software component to [Golan, col. 1 lines 13-28].

Liberman teaches:

An input device that receives a command input from a user to display information from an object model via a software application having an application commander; a computer monitor that displays the requested information, wherein the requested information from the object model is provided by the security agent to the application commander if the request for information does not act to expose the object model in non-obfuscated form [paragraph 0006, 0009, 0029, 0030, Fig. 7, 8].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Liberman with Krishnan and Golan, since one would have been motivated to provide the protection of document/object model from unauthorized uses (e.g. copying/saving/printing/displaying) [Liberman, paragraph 0002].

As per claim 2, the rejection of claim 34 is incorporated and Golan discloses:

the executable file is compiled by a compiler from a C-type programming language object model document [col. 9 lines 56-67, col. 10 lines 1-18, Fig. 4].

As per claim 3, the rejection of claim 34 is incorporated and Golan discloses:

Art Unit: 2135

the loader upon instantiating the security agent provides same with a second reference to the instantiated object model, whereby the commander does not have the second reference and therefore cannot directly access the object model or command same to act [Fig. 4, col. 7 lines 50-57, Fig. 10].

As per claim 4, the rejection of claim 34 is incorporated and Golan discloses:

the instantiated security agent passes on each command (i.e. API call) from the commander to the object model unless such security agent deems such command to be of a type that should not be so passed on [col. 2 lines 43-47, 67, col. 3 lines 1-3].

As per claim 9, the rejection of claim 34 is incorporated and Krishnan discloses:

the loader instantiates the security agent as part of the object model [Fig. 8A, 8B].

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan et al (US Patent No. 6,405,316) and in view of Golan (US Patent No. 5,974,549) and in view of Liberman et al (US Pub. No. 2003/0028801) and in view of Seeman (US Pub. No. 2003/0200459).

As per claim 5, the rejection of claim 34 is incorporated and Golan discloses blocking the API calls (i.e. commands) that are forbidden according to the security policy [col. 2 line 67, col. 3 lines 1-3]. Golan doesn't expressively mention that a type of command that would expose the object model in a non-obfuscated form.

Seeman teaches: the security agent does not pass on to the object model a type of command that would expose the object model in a non-obfuscated form (i.e. clear form or decrypted form) [paragraph 0022 lines 13-16, paragraph 0165 lines 16-18 determines access/usage rights, if determines that the file may not be accessed, process monitor blocks further file reading i.e. does not perform the decryption process on the protected file/document].

Art Unit: 2135

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Seeman with Krishnan, Golan and Liberman, since one would have been motivated to protecting the digital documents/files [Seeman, paragraph 0019 lines 2-3].

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan et al (US Patent No. 6,405,316) and in view of Golan (US Patent No. 5,974,549) and in view of Liberman et al (US Pub. No. 2003/0028801) and Masaki et al (US Patent No. 6,980,308).

As per claim 6, the rejection of claim 34 is incorporated and Golan discloses: blocking the API calls (i.e. commands) by the security monitor that are forbidden according to the security policy [col. 2 line 67, col. 3 lines 1-3].

Masaki teaches: if the degree of matching with the specified pattern is large (i.e. expose the object with a level of granularity finer than a pre-defined maximum), sends a print inhibition command to the printer driver to stop the transmission of the print data (i.e. does not pass a command) [col. 4 lines 1-5, col. 3 lines 9-13, Fig. 7].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Masaki with Krishnan, Golan and Liberman, since one would have been motivated to provide the security [Masaki, col. 1 line 13].

As per claim 7, the rejection of claim 34 is incorporated and Golan discloses:

allowing the API calls (i.e. commands) by the security monitor that are permitted according to the security policy [col. 3 lines 3-5].

the pattern detector does not detect a specified pattern (i.e. expose the object with a level of granularity coarser than the pre-defined maximum), sends a print permission command to the printer driver to start the transmission of the print data (i.e. passes a command) [col. 3 lines 1-7, Fig. 7].

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnan et al (US Patent No. 6,405,316) and in view of Golan (US Patent No. 5,974,549) and in view of Liberman et al (US Pub. No. 2003/0028801) and in view of Dutta et al (US Pub. No. 2002/0138727).

As per claim 8, the rejection of claim 34 is incorporated and Krishnan discloses the security agent and the object model [Fig. 1].

Dutta teaches: the loader instantiates the security agent (i.e. class public ServerClassM) separately from the object model (i.e. Class public ClientClassA or Class public ClientClassB) [Fig. 4A, paragraph 0047, 0048, 0050].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Dutta with Krishnan, Golan and Liberman, since one would have been motivated to provide secure access control [Dutta, paragraph 0009 lines 4-5].

Response to Amendment

9. Applicant has amended claims 10, 18 and added new claim 34, which necessitated new ground of rejection. See rejection above.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-5936. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

NBP

4/18/08

/KIMYEN VU/

Supervisory Patent Examiner, Art Unit 2135